Docket No. 4501-1015 Appln. No. 10/519,624

### REMARKS

Applicants thank Examiner Switzer for her time and consideration of the present application during the telephonic interview of January 20, 2010 with the undersigned.

During the interview, a draft amendment to claims 1 and 17 was discussed, as well as alternative amendments to overcome the utility, written description, and enablement rejection.

This application is amended to incorporate many of the claimed features discussed during the interview in order to place it in condition for allowance.

## Status of the Claims

Independent claims 1 and 17 are amended.

Independent claim 25 is new.

 $\label{eq:theorem} \mbox{These claims are directed to the previously elected and} \\ \mbox{examined subject matter.}$ 

Support may be found, for example, on page 3, lines 1-17, page 5, lines 28-31, page 6, lines 1-10 and 25-33, and page 8, lines 1-12.

Claims 1-6, 9 and 10 and 17-25 remain in this application.

# Claim Rejections-35 USC §101

Claim 1-6, 9 and 10 were rejected under 35 U.S.C. §101 for being directed to non-statutory matter. This rejection is respectfully traversed.

The position was that the determining and analyzing steps were directed to non-statutory matter.

Accordingly, independent claim 1 and new independent claim 25 include language directed to producing a real-world result, e.g., milk.

For example, claim 1 now recites the steps of testing genetic material from cows, identifying cows that will likely to produce milk having a lower percentage of saturated fatty acid or higher percentage of saturated fatty acid levels based on genotyping, and obtaining milk from one or more cows that have been identified.

New claim 25 also recites testing genetic material of cows, selecting cows based on genotyping, and milk the selected cows.

Therefore, as independent claim 1 and dependent claims 2-6, 9 and 10, as well as new claim 25, are directed to obtaining a real world result, withdrawal of the rejection is respectfully requested.

# Claim Rejections-35 USC §112

Claims 1-6, 9-10 and 17-24 were rejected under 35 U.S.C. §112, first paragraph, for not complying with the written description requirement. This rejection is respectfully traversed for the reasons below.

The position of the Official Action was that claim 1 included steps that were not described in the specification, such as "determine the proportion of cows", a "level of unsaturated fatty acids relative to the level of unsaturated fatty acids in milk obtainable from the cows", and the use of proportions of genotypes to determine the levels of fatty acids in milk. Additionally, the Official Action stated that the features of claim 17 that were not found in the specification included, determining the proportion of cows that have DNA encoding  $\beta$ -casein having particular genotypes that are required to provide predetermined levels of saturated and unsaturated fatty acids.

Amended claim 1 is described, for example, by the Example, beginning on page 9, where DNA material is tested. Milk was obtained from these cows, and page 10 discusses the results. For example, lines 14-17 describe milk from cows with the A2 genotype ( $\beta$ -casein having a proline residue at position 67) as having a higher percentage of unsaturated fatty acids and lower percentage of saturated fatty acids, in comparison to cows with the A1 genotype ( $\beta$ -casein having a histidine residue at position 67).

Amended claim 17 is described, in part, at page 3, lines 1-17, DNA material is tested for a group of cows, cows are selected based on a genotype, and the selected cows are milked to give milk have a reduced level of saturated fatty acids. The milk, instead of being "reduced", may also be "altered", e.g., as described at lines 20-23 of page 4. In view of the description of page 3, the reduction is achieved by milking cows with  $\beta$ -casein having a proline residue at position 67.

New claim 25 is described in general at page 3, lines 1-17, i.e., DNA material is tested for a group of cows, cows are selected based on a genotype, and the selected cows are milked to give milk have a reduced level of saturated fatty acids. The first paragraph of page 6 describes the "levels" of page 3 in terms of "percentages". Milk which contain  $\beta$ -casein having a histidine residue at position 67, or Al milk, "has a higher percentage of saturated fatty acids and a lower percentage of unsaturated fatty acids compared to A2 milk" (A2 milk contains a  $\beta$ -casein having a proline residue at position 67). Thus, cows which are likely to produce milk having a higher percentage of unsaturated fatty acids and lower percentage of saturated fatty acids have  $\beta$ -casein having a proline residue at position 67, e.g., as also described on page 10, lines 14-17.

Therefore, independent claims 1, 17, and 25 are described in the specification, as well as dependent claims 2-6,

9-10 and 16-24. and withdrawal of the rejection is respectfully requested.

Claims 1-6, 9-10 and 17-24 were rejected under 35 U.S.C. §112, first paragraph, for not complying with enablement requirement. This rejection is respectfully traversed for the reasons below.

The position of the Official Action was that the specification did not teach how to determine the proportion of cows to arrive at "levels" of saturated and unsaturated fatty acids.

Amended claim 1 and new claim 25, include steps that are enabled by the specification, i.e., identifying or selecting cows more likely to have a higher/lower percentage of saturated fatty acids and a lower/higher percentage of unsaturated fatty acids based on genotyping, and subsequently milking one or more than one of the identified or the selected cows. That is, these claims are enabled by the specification as discussed relative to written description, for example, at page 3, lines 1-17, the first paragraph of page 6, and the steps carried out in the Example.

Amended claim 17, also recites steps that are enabled by the specification, i.e., selecting, from a group of cows, a first number of cows and a second number of cows based on the genotyping, that will likely alter the level of saturated fatty

acids and level of unsaturated fatty acids relative to the milk obtained from the group; and milking the selected first number and second number of cows to give milk having the altered level of saturated fatty acids and altered level of unsaturated fatty acids. For example, the steps of claim 17 are enabled by the same sections of the specification as discussed relative to written description, for example, at page 3, lines 1-17, page 4, lines 20-23 and the steps carried out in the Example.

Therefore, independent claims 1, 17, and 25, as well as dependent claims 2-6, 9-10 and 16-24, are enabled by the specification, and withdrawal of the rejection is respectfully requested.

### Conclusion

In view of the amendment to the claims and the foregoing remarks, this application is in condition for allowance at the time of the next Official Action. Allowance and passage to issue on that basis is respectfully requested.

Should there be any matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any

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overpayment to our credit card which is being paid online simultaneously herewith for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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